

Product Information

# Dynasylan® GLYMO

## 3-Glycidyoxypropyltrimethoxysilane

### PRODUCT DESCRIPTION

Dynasylan® GLYMO is a bifunctional organosilane possessing a reactive organic epoxide and hydrolyzable inorganic methoxysilyl groups.

The dual nature of its reactivity allows Dynasylan® GLYMO to bind chemically to both inorganic materials (e.g. glass, metals, fillers) and organic polymers (e.g. thermosets, thermoplastics, elastomers), thus functioning as an adhesion promoter, crosslinking agent and/or surface modifier.

Dynasylan® GLYMO is a colorless low-viscosity liquid with a slight terpentine-like odor. It is soluble in alcohols, ketones and aliphatic or aromatic hydrocarbons.

#### Typical Properties

Property	Unit	Value
<b>Boiling Point, min.</b> (0.7 hPa) DIN 51356	°C	90
<b>Density</b> (20 °C) DIN 51757	g/cm <sup>3</sup>	1.070-1.070
<b>Flash Point, min.</b> DIN EN ISO 2719	°C	122
<b>Ignition Point</b> DIN 51794	°C	400
<b>Refractive Index</b> (20, D) DIN 51423		1.429
<b>Viscosity</b> (20 °C) DIN 53015	mPa·s	3.65-3.65

The data represents typical values (no product specification)

### TYPICAL APPLICATIONS

Dynasylan® GLYMO is an essential ingredient in the products of many industries. Examples are:

- adhesives and sealants: as a primer or additive
- paints and coatings: as an additive and as a primer to improve adhesion to the substrate, especially to glass and metals
- glass fiber/glass fabric composites: as a finish or a size ingredient
- foundry resins: as an additive to polyurethane resins
- mineral filled composites: for pretreatment of fillers and pigments or as an additive to the polymer

### BENEFITS & ADVANTAGES

Important product effects that can be achieved through the use of Dynasylan® GLYMO include:

- better adhesion of various products/technologies to many substrates
- improved mechanical properties, such as flexural strength, tensile strength, impact strength and modulus of elasticity
- improved moisture and corrosion resistance
- improved electrical properties, e.g. dielectric constant, volume resistivity

Dynasylan® GLYMO can also improve :

- processing properties like filler dispersion
- rheological behavior (i.e. viscosity reduction) of formulations
- increased filler loading
- color stability of end products as it is non yellowing
- shelf life in polyurethanes over aminosilanes

### HANDLING & PROCESSING

In the presence of water, the methoxy groups of Dynasylan® GLYMO hydrolyze to form reactive silanol groups which can bond to a variety of inorganic substrates. The organophilic glycidyl end of Dynasylan® GLYMO can react with a suitable polymer. Hydrolysis of Dynasylan® GLYMO can be catalyzed by organic acids such as acetic

acid. Examples of suitable inorganic substrates are glass, glass fibers, quartz, cristobalite and metals.

Dynasylan® GLYMO can be used with a wide variety of polymers such as epoxy, phenolic, polyurethanes, PVAC, acrylates, polysulfides, silicones, SMP.

Before considering the use of Dynasylan® products please read its Safety Data Sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

The Safety Data Sheet is available on our website <https://silanes.evonik.com/en> or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL [sds-hu@evonik.com](mailto:sds-hu@evonik.com).

## PACKAGING

Dynasylan® GLYMO is supplied in 25 kg, 210 kg drums and 1.000 kg bulk containers.

## SHELF LIFE

In the unopened container Dynasylan® GLYMO has a shelf life of min. 12 months from delivery.

### Registration Listings

Registry	Status
Australia (AICIS)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes
EU (REACH)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
Korea (KECL)	Yes
Philippines (PICCS)	Yes
USA (TSCA)	Yes

### Disclaimer

This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third-party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

### Evonik Operations GmbH

Silanes  
Rodenbacher Chaussee 4  
63457 Hanau-Wolfgang  
Germany  
[evonik.click/silanes](https://www.evonik.click/silanes)